operations of multiplication, division, and finding of powers and roots are greatly shortened by the use of logarithms" needs qualification.

The use of Sn instead of S to denote the sum of n terms of a progression will clear up part of the trouble which sometimes arises at this point; but the use of the phrase "last term" and the corresponding letter l also causes confusion. It still remains for some bold author to replace the l in such formulae as

$$l = a + (n-1)d$$

and

$$S_n = \frac{rl - a}{r - 1}$$

by a_n.

The proof by induction of the binomial theorem for positive integral exponents ought to be made complete. To the best of the present writer's knowledge, this has not been done in any elementary algebra. It is only necessary to show that the sum of the coefficients of the rth and $(r+1)$th terms in the expansion of $(a+b)^n$ is equal to the coefficient of the $(r+1)$th term in the expansion of $(a+b)^{n+1}$, which is a step not at all too difficult for a textbook of this grade.

But when one has said the worst that can be said about the book, the fact remains that the defects are neither numerous nor serious; and that in many important respects, it sets a new and higher standard for high-school algebras.

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Select Translations from Old-English Prose. Edited by ALBERT S. COOK AND CHAUNCEY B. TINKER. Boston: Ginn & Co., 1908. Pp. viii+296. $1.25.

The well-known doggerel lines about Anglo-Saxon,

> "All are dead who spoke it;
> All are dead who wrote it;
> All are dead who learned it;
> Blessed death! They earned it!"

voices the general opinion regarding the literary virtues of Old-English literature, and the particular opinion of those who have toiled through the linguistic difficulties of our earliest mother-tongue. Nevertheless, an acquaintance with this literature should form an indispensable part of the knowledge of every student of comparative literature, of folklore, of English political, religious, legal, social, and literary history. Many students turn away from the laborious course of digging this knowledge out of the original tongue, and many dislike plodding through the time-honored translations in Bohn's libraries to separate the chaff and the grain. To garner the good of this voluminous literature requires no little effort and no small knowledge. These virtues, combined with sympathy and insight, mark the volume entitled *Select Translations from Old-English Prose.* The editors, encouraged by the favorable reception of a previous volume of selections from Old-English Poetry, have increased their credit with students of Old-English literature by compiling this volume. The book is made up of excellent translations, both selected and original, from the more interesting and valuable parts of Bede's *Ecclesiastical History;* from the Old-

English Chronicle; Asser's *Life of King Alfred;* from *King Alfred's Works: Ælfric's Homilies;* the aprocryphal *Harrowing of Hell;* the romance of *Appollonius of Tyre,* and other productions of early English writings. Prefaces to each section, notes, and an unusually good index make the volume an acceptable accessory for even the learned in Old English, and exceedingly helpful to the unread in our early English prose. These two volumes, the *Select Translations from Old-English Poetry,* and the volume on prose, will be of great worth to all teachers of English history and of English literature. Teachers of secondary English will find much excellent supplementary reading in the two books.

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Elements of Plane and Solid Geometry. By ALLEN SANDERS. New York: American Book Co. Pp. 384. New edition (unchanged).

As a basis for work in geometry this is an excellent textbook. The order of the theorems is well chosen; and parts of the demonstrations are omitted so that the pupil must to some extent use his own reasoning powers. The constructions, as erecting perpendiculars, bisecting a line, etc., are given early, and the teacher may thus have the pupils do considerable work in mathematical drawing and constructions, which is a valuable part of the geometric work. The chief point of excellence in this book is that each theorem is followed by several simple exercises bearing directly upon the principle of the proposition. They give the pupil practice in numerical computation, mathematical drawing, and devising geometric proofs of easy theorems.

But, in the opinion of the writer, it is only as a basis of work that this textbook should be used. The advisability of attempting the proofs of theorems in the theory of limits in elementary geometry has been widely discussed during the past few years; and the articles by Hedrick, Hawkes, Lennes, Greenwood, and others in *School Science and Mathematics* show that the proofs usually given are not rigorous, and that it is not the part of wisdom to present proofs which cannot be understood nor appreciated by the pupils in elementary geometry. Moreover, this textbook, in common with others, has little or no connection with the rest of the domain of mathematics, and with the ordinary, everyday life and knowledge of the pupil. *Geometric Exercises for Algebraic Solution* by Professor Geo. W. Myers is a revelation of the direct and simple way in which the year given to geometry may be made of vastly more value to the average pupil. By the omission of unnecessary theorems and the proofs in the theory of limits there is time for algebraic problems which will give the pupils a stronger grasp on algebra and a better working knowledge of geometry. The teacher who uses Sanders' *Geometry,* adding algebraic and practical problems and exercises, will find that he can do very satisfactory work.

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